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Department of Energy

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DEC 15 1992

92-DOE-14192

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Gentlemen:

As you know, the Interim Measure/Interim Remedial Action (IM/IRA) Decision Document (DD) for the Solar Evaporation Ponds, Operable Unit Number 4 (OU-4), dated April 1992, selected a remedy to cease the addition of interceptor trench system (ITS) water to the Solar Evaporation Ponds at the Rocky Flats Plant (RFP) by installing a series of holding tanks and an evaporator system to treat the water. The schedule for commencing the operation of the evaporator system and modular tanks has slipped from that proposed in Section 3.1.6 of the IM/IRA DD. The current schedule projections indicate that the modular tank system and the Building 910 flash evaporator system should be operational by the end of January 1993 and the middle of June 1993, respectively.

The original planning implied that the evaporator system would be operational prior to diverting the ITS water to the modular tanks. ITS water is currently pumped to Pond 207B north. DOE is committed to achieving the objectives of the IM/IRA as soon as possible and has identified several actions that will allow us to accelerate the major objective of diverting the ITS water from the ponds and to the modular tanks. We feel these actions are within the intent of the IM/IRA, however, approval is requested from your agencies prior to implementation. In a previous meeting, representatives from the Colorado Department of Health, the Environmental Protection Agency, the Department of Energy, and EG&G, discussed several of these actions. At that time, you indicated that the proposed actions were probably minor modifications to the IM/IRA DD and, therefore, could be documented and approved via an exchange of letters.

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DOE, therefore, requests your concurrence with the following:

1) Provide a connection to allow ITS water to be pumped directly from the modular tanks to the Building 374 Evaporators for treatment. This would allow us to take advantage of any excess capability of the Building 374 evaporators on demand and thereby, mitigate the risk of diversion to the modular surge tanks prior to Building 910 being operational.

While receiving ITS water, Building 374 will continue to operate under the current conditions. That operation includes treatment of waste waters similar to the trench water, the use of the evaporator distillate below a conductivity of 150 micro ohms/cm (higher conductivity distillate is recycled through the evaporator) under the commercial exclusion provisions (6 CCR 1007-3, section 261.2 (E) (ii), and cementation of the bottoms into saltcrete. The saltcrete is stored on-site pending disposal at the Nevada Test Site. The distillate supplements the plant's raw water supply for plant cooling towers. The distillate is collected in a tank and sampled prior to transfer to the raw water system. Use of the Building 374 distillate is the same as the use of the Building 910 distillate as described in the IM/IRA.

2) Divert ITS water to the modular surge tanks following completion of the Building 374 connection and prior to the Building 910 Evaporators becoming operational. There is a certain amount of risk associated with this action, namely, that the capacity of the tanks could be reached prior to the 910 evaporators being operational. This risk can be mitigated in a worst case scenario (extreme ITS flow due to excessive snow melt, rainfall, etc. overwhelming the evaporator capacity) by pumping excess ITS water into the ponds, as an absolute last resort.

3) Divert ITS water to the modular tanks prior to completion of the Radio Frequency (RF) remote leak and overfill monitoring system. The leak and overfill detection sensors for the tanks are installed and operational and a leak or overfill condition will be indicated by a lamps on the control panel in the modular tank pump house. The RF system will provide remote detection capability to the continuously staffed Building 374 control room, and should be operational in early March, 1993. If we experience average precipitation this winter and ship no water to Building 374, we would expect to have less than one half of one tank of ITS water (that is, less than 250,000 gallons) when the RF system begins operation. Until the RF system is operational, the ITS sump water level, and alarm points for tank water level, and tank leak detection will be checked visually twice per shift, three shifts per day, seven days a week.

4) DOE would like to maintain approximately 18 inches of ITS water in the contingency "empty tank". This water volume is required per the manufacturer's specifications to maintain the tank liners in place within the steel walls during periods of high winds. Such winds as we experience at the site could easily pull the liners out of the tank and result in tears or complete destruction of the liners.

This level of water will be retained throughout the operational life of the tanks. The tanks can be completely emptied if necessary to clean the bottoms or for eventual decommissioning and removal.

Two additional items, listed below, do not directly affect the expedited diversion of the ITS water, but supplement the detail contained in the IM/IRA DD and enhance the operation of Building 910. We would greatly appreciate your review, input and concurrence with the following items:

1) The Building 910 basement sump was replaced with a containment tank during the later stages of construction. The tank was preferred when the detailed design showed that adequate leak monitoring of the original sump would be difficult to achieve. The tank will achieve the sump's intended function and will facilitate operations of Building 910. CDH and EPA field representatives were apprised of this modification during routine inspections. We are requesting formal approval of this modification since the IM/IRA specifically calls for a sump.

2) The IM/IRA currently specifies that the Building 910 evaporator bottoms will be concentrated to between 300,000 ppm and 400,000 ppm. To allow for increased operational flexibility, we desire to modify this language to specify that the concentration of the Building 910 flash evaporators will not exceed 400,000 ppm.

DOE requests your concurrence with these actions. We assume your concurrence will fulfill permitting requirements, consistent with the use of the IM/IRA as the permitting mechanism for the selected remedy. Please notify us at your earliest convenience if this assumption is misplaced. Assuming your concurrence is received by December 24, 1992, we expect to be ready to divert the ITS water by the end of January 1993.

If you have any questions concerning these actions or require additional information, please contact me on 966-7846 or Scott R. Surovchak on 966-3551.

Frazer R. Lockhart
SEP Program Manager
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